

1 WHAT IS CLAIMED IS:

1. An electronic still camera capable of A/D conversion of still image signal obtained from an image pickup device and compression of thus digitized signal,
5 and provided with a memory medium capable of recording thus compressed signal plural times, comprising:

detection means for detecting the remaining capacity of the memory medium;

memory means for memorizing the amount of said
10 compressed signal at each phototaking operation;

calculation means for determining the remaining number of recordable image frames by dividing the remaining capacity of the memory medium with the amount of compressed signal corresponding to an image frame;
15 and

display means for displaying the number of already recorded image frames and said remaining number of recordable image frames.

20 2. An electronic still camera according to claim 1, further comprising:

selection means for selecting either simultaneous display of said number of recorded image frames and said remaining number of recordable image frames,
25 or display of either one thereof, on said display means.

09749680-122800

1 3. An electronic still camera capable of A/D
conversion of still image signal obtained from an
image pickup device and compression of thus digitized
signal, and provided with a memory medium capable of
5 recording thus compressed signal plural times, com-
prising:

 detection means for detecting the remaining
capacity of the memory medium;

 memory means for memorizing the amount of
10 said compressed signal at each phototaking operation;

 calculation means for determining the remaining
number of recordable image frames by dividing the
remaining capacity of the memory medium with the
amount of compressed signal corresponding to an image
15 frame; and

 display switching means for selectively
switching either the display of said remaining number
of recordable image frames or the display of the
remaining capacity of said memory medium.

20

 4. An electronic still camera capable of A/D
conversion of still image signal obtained from an
image pickup device and compression of thus digitized
signal, and provided with a memory medium capable of
25 recording thus compressed signal plural times,
comprising:

 detection means for detecting the remaining

00749680-122800

1 capacity of the memory medium;

memory means for memorizing the amount of said compressed signal at each phototaking operation;

calculation means for determining the remaining
5 number of recordable image frames by dividing the remaining capacity of the memory medium with the amount of compressed signal corresponding to an image frame;
and

display means consisting of a first display
10 part for indicating the number of already recorded image frames and a second display part of a belt form positioned surrounding said first display part, and adapted to indicate the number of already recorded image frames and the remaining number of recordable
15 image frames by lighting, in said second display part, only a range corresponding to said remaining number.

5. An electronic still camera capable of A/D conversion of still image signal obtained from an image
20 pickup device and compression of thus digitized signal, and provided with a memory medium capable of recording thus compressed signal plural times, comprising:

detection means for detecting the remaining capacity of the memory medium;

25 memory means for memorizing the amount of said compressed signal at each phototaking operation;

extraction means for extracting the amount of

09749680 122800

1 compressed signal of latest image frames of a pre-
determined number from said memory means;

calculation means for calculating the average
data amount in the image frames of said predetermined
5 number, and determining the remaining number
of recordable image frames by dividing the
remaining capacity of the memory medium with said
average data amount or said average data amount
increased by a predetermined proportion; and

10 display means for indicating said remaining
number of recordable image frames.

6. An electronic still camera capable of A/D
conversion of still image signal obtained from an image
15 pickup device and compression of thus digitized signal,
and provided with a memory medium capable of recording
thus compressed signal plural times, comprising:

detection means for detecting the remaining
capacity of the memory medium;

20 memory means for memorizing the amount of
said compressed signal at each phototaking operation;

extraction means for extracting, from said
memory means, the amount of compressed signal of the
image frames recorded in the memory medium;

25 calculation means for calculating the average
data amount of thus extracted image frames and deter-
mining the remaining number of recordable image frames
by dividing the remaining capacity of the memory medium

09749680-122800

1 with said average data amount or said average data
amount increased by a predetermined proportion; and
display means for indicating said remaining
number of recordable image frames.

5

7. An electronic still camera capable of A/D
conversion of still image signal obtained from an
image pickup device and compression of thus digitized
signal, and provided with a memory medium capable of
10 recording thus compressed signal plural times,
comprising:

detection means for detecting the remaining
capacity of the memory medium;

memory means for memorizing the amount of said
15 compressed signal at each phototaking operation;

extraction means for extracting the maximum
data amount of latest compressed signal from said
memory means;

calculation means for determining the remaining
20 number of recordable image frames by dividing the
remaining capacity of the memory medium with said
maximum data amount; and

display means for displaying said remaining
number of recordable image frames.

25

8. An electronic still camera capable of A/D
conversion of still image signal obtained from an image

00749680 122800

1 pickup device and compression of the digitized
signal, and provided with a memory medium capable of
recording thus compressed signal plural times, com-
prising:

5 detection means for detecting the remaining
capacity of the memory medium; and

calculation means for determining the remaining
number of recordable image frames by dividing the
remaining capacity of the memory medium with a pre-
10 determined data amount.

9. An electronic still camera capable of A/D
conversion of still image signal obtained from an
image pickup device and compression of thus digitized
15 signal, and provided with a memory medium capable of
recording thus compressed signal plural times, com-
prising:

detection means for detecting the remaining
capacity of the memory medium;

20 memory means for memorizing the amount of said
compressed signal at each phototaking operation;

calculation means for determining the remaining
number of recordable image frames by dividing the
remaining capacity of the memory medium with the amount
25 of said compressed signal in the latest phototaking
operation; and

display means for indicating said remaining

09749680-122800

1 number of recordable image frames.

10. An electronic still camera capable of A/D
conversion of still image signal obtained from an
5 image pickup device and compression of thus digitized
signal, and provided with a memory medium capable of
recording thus compressed signal plural times, com-
prising:

10 detection means for detecting the remaining
capacity of the memory medium;

memory means for memorizing the amount of said
compressed signal at each phototaking operation;

15 extraction means for extracting the maximum and
minimum data amounts of compressed signals from said
memory means;

calculation means for determining the minimum
and maximum remaining numbers of recordable image
frames by dividing the remaining capacity of the
memory medium respectively with said maximum and
20 minimum data amounts; and

display means for indicating said remaining
number of recordable image frames in the form of a
range defined by said minimum and maximum remaining
numbers.

25

11. An electronic still camera according to
claim 10, wherein said display means is adapted to

0092221" 08964250

1 indicate said range defined by the minimum and maximum
remaining numbers of recordable image frames, with
two integral numbers.

5 12. An electronic still camera according to claim
10, wherein said display means is adapted to indicate
said range defined by the minimum and maximum remaining
numbers of recordable image frames, by lighting a part
of mutually adjacent display parts.

10 13. An electronic still camera capable of A/D
conversion of still image signal obtained from an
image pickup device and compression of thus digitized
signal, and provided with a memory medium capable of
15 recording thus compressed signal plural times, com-
prising:

detection means for detecting the remaining
capacity of the memory medium;

20 memory means for memorizing the amount of
said compressed signal at each phototaking operation;

extraction means for extracting the image
signals of the maximum amount, minimum amount and
approximately average amount from said memory means;

25 calculation means for dividing the remaining
capacity of the memory medium with said maximum,
minimum and said approximately average amounts,
thereby obtaining the respectively corresponding

09749630.122800

1 remaining numbers of recordable image frames;

selection means for manually selecting one of
said compression signals of the maximum, minimum and
approximately average amounts; and

5 display means for displaying thus selected
compressed signal of said maximum, minimum or approxi-
mately average amount as a still image and also indi-
cating said remaining number of recordable image frames,
corresponding to said selected compressed signal.

10

14. An electronic still camera capable of A/D
conversion of still image signal obtained from an
image pickup device and compression of thus digitized
signal, and provided with a memory medium capable of
15 recording thus compressed signal plural times, com-
prising:

detection means for detecting the remaining
capacity of the memory medium;

memory means for memorizing the amount of said
20 compressed signal at each phototaking operation;

extraction means for extracting the amount of
compressed signal of latest image frames of a pre-
determined number, from said memory means;

calculation means for determining the minimum
25 and maximum remaining numbers of recordable image
frames, by calculating the average data amount in said
image frames of predetermined number and the standard

09749680-122800

09749680 122800

1 deviation thereof, and dividing the remaining
capacity of the memory medium with said average data
amount to which added is said standard deviation
increased by a predetermined proportion, thereby
5 determining the minimum remaining number of recordable
image frames, and also dividing the remaining capacity
of the memory medium with said average data amount
from which subtracted is said standard deviation
increased by a predetermined proportion, thereby
10 determining the maximum remaining number of recordable
image frames; and

display means for indicating at least either
of said minimum and maximum remaining numbers of
recordable image frames.

15

15. An electronic still camera capable of A/D
conversion of still image signal obtained from an
image pickup device and compression of thus digitized
signal, and provided with a memory medium capable of
20 recording thus compressed signal plural times, com-
prising:

detection means for detecting the remaining
capacity of the memory medium;

memory means for memorizing the amount of said
25 compressed signal at each phototaking operation;

start signal input means for manually entering
a start signal for initiating calculation of average;

5 calculation means for calculating the average data amount in said image frames and determining the remaining number of recordable image frames by dividing the remaining capacity of the memory medium with said average data amount; and

16. An electronic still camera capable of A/D conversion of still image signal obtained from an image pickup device and compression of thus digitized signal, and provided with a memory medium capable of recording thus compressed signal plural times, comprising:

memory means for memorizing the amount of said compressed signal at each phototaking operation;

25 extraction means for extracting, from said
memory means, the amount of compression signal of
the image frames after the entry of the calculation

1 start signal by said start signal input means;
calculation means for determining the minimum
and maximum remaining numbers of recordable image
frames, by calculating the average data amount in
5 said image frames of predetermined number and the
standard deviation thereof, and dividing the
remaining capacity of the memory medium with said
average data amount to which added is said standard
deviation increased by a predetermined proportion,
10 thereby determining the minimum remaining number of
recordable image frames, and also dividing the
remaining capacity of the memory medium with said
average data amount from which subtracted is said
standard deviation increased by a predetermined
15 proportion, thereby determining the maximum remaining
number of recordable image frames; and
display means for indicating at least either
of said minimum and maximum remaining numbers of
recordable image frames.

20

17. An electronic still camera according to
claim 16, wherein said calculation means is adapted
to determine the remaining number of recordable image
frames by dividing said remaining capacity of the
25 memory medium with a predetermined value, immediately
after the manual entry of said calculation start
signal and in case the phototaking operation has not

09749680-122800

1 taken place.

18. An electronic still camera according to
claim 16, wherein said calculation means is adapted
5 to determine the remaining number of recordable image
frames by dividing said remaining capacity of the
memory medium with an immediately preceding average
value, immediately after the manual entry of said
calculation start signal and in case the phototaking
10 operation has not taken place.

19. An electronic still camera according to
claim 16, wherein a mounting operation of the memory
medium constitutes the manual operation, for entering
15 said average calculation start signal, in said start
signal input means.

20. An electronic still camera capable of A/D
conversion of still image signal obtained from an
20 image pickup device and compression of thus digitized
signal, and provided with a memory medium capable of
recording thus compressed signal plural times, com-
prising:

25 detection means for detecting the remaining
capacity of the memory medium;

memory means for memorizing the amount of
said compressed signal at each phototaking operation;

09749680-122800

00827-0895450

1 calculation means for determining the remaining
number of recordable image frames by dividing the
remaining capacity of the memory medium with a predeter-
mined data amount until a predetermined number of image
5 frames is reached, and, beyond said predetermined
number, calculating the average data amount of the
image frames recorded in the memory medium and the
standard deviation thereof, and determining the minimum
remaining number of recordable image frames by dividing
10 the remaining capacity of the memory medium with said
average data amount to which added is said standard
deviation increased by a predetermined proportion, and
the maximum remaining number of recordable image frames
by dividing the remaining capacity of the memory medium
15 with said average data amount from which subtracted is
said standard deviation increased by a predetermined
proportion; and

display means for indicating said remaining
number of recordable image frames, or at least either
20 of said minimum and maximum remaining numbers of
recordable image frames.

21. An electronic still camera according to claim
20, wherein said predetermined frame number is de-
25 termined, based on the remaining capacity of said
memory medium detected by said detection means.

1 22. An electronic still camera according to claim
20, wherein said proportion of increase applied on said
standard deviation in said calculation means beyond
said predetermined number of image frames is a positive
5 constant increasing with the number of recorded image
frames.

23. An electronic still camera capable of A/D
conversion of still image signal obtained from an
10 image pickup device and compression of thus digitized
signal, and provided with a memory medium capable of
recording thus compressed signal plural times, com-
prising:

compression rate selection means for selecting
15 one of plural compression rates with which said
compression of the digitized signal can be conducted;

detection means for detecting the remaining
capacity of the memory medium;

memory means for memorizing the amount of
20 said compressed signal and the compression rate thereof
for each phototaking operation;

extraction means for extracting, from said
memory means, the maximum and minimum amounts of the
compressed signal for each compression rate;

25 calculation means for determining the minimum
and maximum remaining numbers of recordable image
frames for each compression rate, by dividing the

09749680-122800

1 remaining capacity of the memory medium with said
maximum data amounts thereby determining the minimum
remaining numbers of recordable image frames for the
respective compression rates, and by dividing the
5 remaining capacity of the memory medium with said
minimum data amounts thereby determining the maximum
remaining numbers of recordable image frames for the
respective compression rates; and

display means for indicating the remaining
10 number of recordable image frames in the form of a
range defined by the minimum and maximum remaining
numbers of recordable image frames for the currently
selected compression rate.

15 24. An electronic still camera according to claim
23, wherein said compression rate selection means is
adapted to automatically vary the compression rate when
said detection means detects that the remaining
capacity of the memory medium has become equal to or
20 less than a predetermined value, and said display means
is adapted to indicate the remaining number of recordable
image frames with a range based on thus varied com-
pression rate.

25 25. An electronic still camera capable of A/D
conversion of still image signal obtained from an image
pickup device and compression of thus digitized signal,

008221 09564260

1 and provided with a memory medium capable of recording
thus compressed signal plural times, comprising:

compression rate selection means for selecting
one of plural compression rates with which said

5 compression of the digitized signal can be conducted;

detection means for detecting the remaining
capacity of the memory medium;

memory means for memorizing the amount of said
compressed signal and the compression rate thereof for
10 each phototaking operation;

extraction means for extracting, from said
memory means, the maximum and minimum amounts of the
compressed signal for each compression rate;

calculation means for determining the minimum
15 and maximum remaining numbers of recordable image
frames for each compression rate, by dividing the
remaining capacity of the memory medium with said
maximum data amounts thereby determining the minimum
remaining numbers of recordable image frames for the
20 respective compression rates, and by dividing the
remaining capacity of the memory medium with said
minimum data amounts thereby determining the maximum
remaining numbers of recordable image frames for the
respective compression rates; and

25 display means for indicating at least either
of the minimum and maximum remaining numbers of
recordable image frames for the currently selected

09749680-122800

1 compression rate.

26. An electronic still camera according to claim
25, wherein said compression rate selection means is
5 adapted to automatically vary the compression rate when
said detection means detects that the remaining capacity
of the memory medium has become equal to or less than a
predetermined value, and said display means is adapted
to indicate the remaining number of recordable image
10 frames with a range based on thus varied compression
rate.

15

20

25

09749680-122800